Sheet 1 of 1		· · · · · · · · · · · · · · · · · · ·								
FORM PTO,1449 (n	nodified)		400	ATTY DOCKET	NO		SERIAL			
· U.S. D	EPART	MENT OF COMMER TRADEMARK OF	CE 1 0 2001	ජූ2000_1388			09/67	7,421		
1		\7		APPLICANT Mitsuaki OSI	IIMA et al.					
İ		ES CITED BY APPLY sheets if necessary to PTO: April 10, 2		FILING DATE October 5, 2	000			GROUP 2614		•
				U.S. PATENT DO			I			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NA		CLAS	s	SUBCLASS	FILING I APPRO	
Sex	AA	5,565,926	10-15-96	Bryan	et al.					
	АВ							RE	CEIVE	D
	AC							APR	CEIVE 1 1 200	1
	AD							recnnolo	ly Center 2	600
	AE									
	AF									
	AG									
	АН									
	AI	***************************************							* · · · · · · · · · · · · · · · · · ·	
	,			FOREIGN PATENT	DOCUMENTS			···		
		DOCUMENT NUMBER	DATE	COUN	ITRY	CLAS	s	SUBCLASS	TRANS YES	
20	LA	2-166979	6-27-90	Jap	an .		_		abstract	
	AK									
	AL									
	AM									
	AN								:	
-		отн	ER DOCUMENT(S) (Including Autho	r, Title, Date, Pertinent	t Pages,	, Etc.)	-		
	AO									
	AP								, A ₂ , 4	
	ΑQ									
EXAMINER	Ar	nandate			DATE CONSIDERED		5.1	3.02	.	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ATT SOCKET NO. SERIAL NO. NEW			 				_					
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE UST OF REPERENCES CITED BY APPLICANTIS) (102e severed inhere if indecessary) Dato Submitted to PTO: October 5, 2000 U.S. PATENT DOCUMENTS TEXAMNER NUMBER DATE NAME CLASS SUBCLASS FAUND DATE INTIGAL AA 5,311,550 5-10-94 FOuche et al. AB 4,630,287 12-16-86 Armstrong AC 4,271,527 6-2-81 Armstrong AD 5,050,188 9-17-91 Dirr AE 5,398,073 3-14-95 Wei AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AH 5,481,412 1-2-96 Bussgang et al. DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO AJ 0365431 4-25-90 EP AK 0485105 5-13-92 EP AK 0485105 5-13-92 EP AN 99/08366 9-8-89 WO AN 0031193 7-1-81 EP OTHER DOCUMENTS (including Author, Titie, Date, Pertinent Pages, Etc.) AO Shinii Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands".	Sheet 1 of 6		· · _ · _ · _									
PATENT AND TRADEMARK OFFICE LIST OF REFERENCES GITED BY APPLICANTIS) (Info serveral phene if it necessary) Date Submitted to PTO: October 5, 2000 U.S. PATENT DOCUMENTS PEXAMINER AA 5,311,550 AA 5,311,550 AB 4,630,287 12-16-86 Armstrong AC 4,271,527 AC 4,271,527 AC 5-281 AD 5,050,188 AD 5,050,188 AD 5,050,188 AF 5,452,015 AF 7,470,014 AF 5,452,015 AF 7,470,01					•	0.			NO.			
TRUMS DATE DOCUMENT DATE DATE DOCUMENT	PATE	NT AND	TRADEMARK OFFI	CE		IMA et al.	<u>. l.</u>					
U.S. PATENT DOCUMENTS	(U	se severa	sheets if necessary)						GROU	JP		-
TEXAMINER INITIAL DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE FAPPROPRIATE	Date Sur	mittea	to PTO: October 5,	2000								
NITTAL		T	<u> </u>		U.S. PATENT DO	CUMENTS						
AB 4,630,287 12-16-86 Armstrong AC 4,271,527 6-2-81 Armstrong AD 5,050,188 9-17-91 Dirr AE 5,398,073 3-14-95 Wei AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS AJ 0365431 4-25-90 EP AK 0485105 5-13-92 EP AK 0485105 5-13-92 EP AL 92/14343 8-20-92 WO AM 89/08366 9-8-89 WO AN 0031193 7-1-81 EP AO Shinii Matsumoto et al., "200 Mb/s 16 QAM Dipital Radio-Relay System Operating in 4 and 5 GHz Bands".				DATE	NAM	E	CLAS	is	SUE	CLASS		
AC 4,271,527 6-2-81 Armstrong AD 5,050,188 9-17-91 Dirr AE 5,398,073 3-14-95 Wei AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO YES NO AL 0,485105 5-13-92 EP AL 92/14343 8-20-92 WO AM 89/08366 9-8-89 WO AM 89/08366 9-8-89 WO AN 0031193 7-1-81 EP AD OTHER DOCUMENT[S] lineluding Author, Title, Date, Pertinent Pages, Etc.]	SR	AA	5,311,550	5-10-94	Fouche	et al.						
AD 5,050,188 9-17-91 Dirr AE 5,398,073 3-14-95 Wei AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER AJ 0365431 4-25-90 EP AK 0485105 5-13-92 EP AK 0485105 5-13-92 EP AL 92/14343 8-20-92 WO AM 89/08366 9-8-89 WO AM 89/08366 9-8-89 WO AN 0031193 7-1-81 EP X OTHER DOCUMENTIS) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumpto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",	1	AB	4,630,287	12-16-86	Armstr	rong						
AE 5,398,073 3-14-95 Wei AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER COUNTRY CLASS SUBCLASS TRANSLATION YES NO AJ 0365431 4-25-90 EP X AK 0485105 5-13-92 EP X AL 92/14343 8-20-92 WO X AM 89/08366 9-8-89 WO X AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) Ilincluding Author, Title, Date, Pertiment Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",		AC	4,271,527	6-2-81	Armstr	rong						
AF 5,452,015 9-19-95 Hulyalkar AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER COUNTRY CLASS SUBCLASS TRANSLATION YES NO AJ 0365431 4-25-90 EP X AK 0485105 5-13-92 EP X AK 0485105 5-13-92 EP X AM 89/08366 9-8-89 WO X AM 89/08366 9-8-89 WO X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)		AD	5,050,188	9-17-91	Dir							
AG 5,565,932 10-15-96 Gitta et al. AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER COUNTRY CLASS SUBCLASS TRANSLATION YES NO AJ 0365431 4-25-90 EP X AK 0485105 5-13-92 EP X AL 92/14343 8-20-92 WO X AM 89/08366 9-8-89 WO X AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinii Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",		AE	5,398,073	3-14-95	We	i						
AH 5,481,412 1-2-96 Bannai et al. AI 3,909,721 9-30-75 Bussgang et al.		AF	5,452,015	9-19-95	Hulyal	kar						
AI 3,909,721 9-30-75 Bussgang et al. FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO		AG	5,565,932	10-15-96	Gitta e							
DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO		АН	5,481,412	1-2-96	Bannai	et al.						
DOCUMENT NUMBER AJ 0365431 4-25-90 EP X AK 0485105 5-13-92 EP X AL 92/14343 8-20-92 WO X AM 89/08366 9-8-89 WO X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",	IR	AI	3,909,721	9-30-75	Bussgang	g et al.	<i>_</i>		1			
NUMBER YES NO X X X X X X X X X					FOREIGN PATENT D	OCUMENTS						
AK 0485105 5-13-92 EP X AL 92/14343 8-20-92 WO X AM 89/08366 9-8-89 WO X AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",				DATE	COUNT	TRY	CLAS	ss	SUE	CLASS		
AL 92/14343 8-20-92 WO X AM 89/08366 9-8-89 WO X AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",	SK	AJ	0365431	4-25-90	EP			-	-	$\overline{1}$		х
AM 89/08366 9-8-89 WO X AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",		AK	0485105	5-13-92	EP						X	
AN 0031193 7-1-81 EP X OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",		AL	92/14343	8-20-92	wo)					x	
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",	\bigvee	АМ	89/08366	9-8-89	wo)					×	
AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",	3K	AN	0031193	7-1-81	EP				7		X	
AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands", Japan Telecommunications Review, January 1982, vol. 24, no. 1, pages 65-73.			отн	ER DOCUMENT(S) (Including Author,	Title, Date, Pertiner	nt Pages	s, Etc.)				
1	AC	AO Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands",										
M. Pecot et al., "Compatible Coding of Television Images, Part 2. Compatible System", Signal Processing Image Communication, October 2, 1990, no. 3, pages 259-268.												
AQ Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.	J. L.	AQ Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.										
EXAMINER Amandale DATE CONSIDERED 5.13.02		<u> </u>	Amanda	<u> </u>		DATE CONCIDENCE		5.12	3.02	<u></u>		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

							4 =				
Shee	nt 2 of 6		· · · · · · · · · · · · · · · · · · ·								
FOR	M PTO 1449 (/				ATTY DOCKET NO. 2000_1388		SERIAL NEW	NO.			
	PATE	DNA TN	MENT OF COMMER TRADEMARK OFFI ES CITED BY APPLICA	CE	APPLICANT Mitsuaki OSHIMA et al.		<u></u>				
	. (<i>U</i> s	e severa	sheets if necessary)		FILING DATE October 5, 2000			GROL	iP		
	Date Suc	mitted	to PTO: October 5,	2000				<u> </u>	 		
• 5	XAMINER	Γ	DOCUMENT	DATE	U.S. PATENT DOCUMENTS NAME	T	ASS	eu B	CLASS	FILING I	DATE IS
	INITIAL	ļ	NUMBER	DATE	NAME			306	CLASS	APPRO	
<u> </u>	LE	AA	4,227,152	10-7-80	Godard et al.	 	_				
		АВ	4,525,846	6-25-85	Bremer et al.						
		AC	4,751,478	6-14-88	Yoshida						
		AD	4,891,806	1-2-90	Farias et al.						
		AE	4,903,125	2-20-90	Parker						
		AF	4,937,844	6-26-90	Kao						
		AG	5,164,963	11-17-92	Lawrence et al.						
R	.X	АН	5,555,275	9-1996	Oshima	1			/		
		AI									
					FOREIGN PATENT DOCUMENTS						
			DOCUMENT NUMBER	DATE	COUNTRY	CLA	Ass	SUB	CLASS	TRANSI YES	
J	ld.	AJ	0311188	4-12-89	EP					x	
		AK	0329158	8-23-89	EP					X	
		AL	64-5135	1-10-89	JP					X	
J		АМ	63-28145	2-5-88	JP					х	
1	42 \	AN	62-133842	6-17-87	JP	1	-	L		x	
			отн	ER DOCUMENT(S	(Including Author, Title, Date, Po	ertinent Pag	es, Etc.)				
حر	42	AO	OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) Tricia Hill et al., "A Performance Study of NLA 64-State QAM", IEEE Transactions on Communications, vol. COM-31, June 1983, no. 6, pages 821-826.								
		AP	AP Hideki Ishio et al., "A Proposal of a Carrier Digital Transmission System Using Multi-Level APSK", pages 1-20.								
Ú	AL	AQ Shanmugam, "Digital and Analog Communication Systems" 1979, p. 272.									
EXA	AINER	IER Amardale DATE CONSIDERED 05.13.02									

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 3 of 6						U					
FORM PTO 1449 (MENT OF COMMER	or.	ATTY DOCKET 2000_1388	NO.		RIAL I	NO.			
PATE	NT AND	TRADEMARK OFFI	CE	APPLICANT Mitsuaki OSI	HIMA et al.		-				
·(υ	lse severa	sheets if necessary) to PTO: October 5,		FILING DATE October 5, 2				GROU	JP		
				U.S. PATENT DO							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NA		CLASS		SUB	CLASS		DATE IF
2D	АА	5,105,442	4-14-92	w	'ei			-			
	AB	4,048,572	9-13-77	Dogliot	ti et al.						
	AC	5,282,019	1-25-94	Basile	et al.						
	AD	5,311,547	5-10-94	w	'ei						
	AE	5,267,021	11-30-93	Ramchandran et al.							
	AF	5,038,219	8-6-91	Yamashita et al.							
	AG	5,087,975	2-11-92	Citta et al.							
UR	АН	5,086,340	2-4-92	Citta et al.							
Al											
		T		FOREIGN PATENT	DOCUMENTS						
		DOCUMENT NUMBER	DATE	cou	NTRY	CLASS		SUB	CLASS	TRANS YES	SLATION S NO
200	AJ	53-137657	12-1-78	J	Р	T		1		Х	ļ
	AK	0282298	9-14-88	Eur	оре					Х	
	AL	0392538	10-17-90	Eur	оре					х	
	АМ	0490552	6-17-92	Eur	оре			\perp		х	
Jek	AN	0506400A2	9-30-92	Eur	оре	1		上			
	1	отн	ER DOCUMENT(S) (Including Autho	r, Title, Date, Pertine	ent Pages, L	Etc./			<u>.</u>	
28	AO	Khaled Fazel et al., Combined multilevel coding and multiresolution modulation, February 8, 1993, Pages 1081-1085									
	АР	P. Hoeher et al., Performance of an RCPC-Coded OFDM-based Digital Audio Broadcasting (DAB) System, IEEE Global Telecommunications Conference "Globecom '91", December 2-5, 1991, Vol. 1 of 3, Pages 2.1.1 - 2.1.7									
ak.	AQ	K. M. Uz et al., Combined multiresolution source coding and modulation for digital broadcast of HDTV*, 1992, Pages 283-292									
EXAMINER		Ama	ndate		DATE CONSIDERE	D	5.1	3.0	<u>ي</u>		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 4	of 6												
FORM PT	FO 1449 (<i>n</i>				ATTY DOCKET 2000_1388	NO.		SERIAL NEW	NO.				
	PATEN	IT AND	MENT OF COMMER TRADEMARK OFFI ES CITED BY APPLICA	CE	APPLICANT Mitsuaki OSI	HIMA et al.		<u>. </u>					
	(Us	e several	sheets if necessary)		FILING DATE				GROU	iP			
	Date Sub	mitted t	o PTO: October 5,	2000	October 5, 2				l				
					U.S. PATENT D				T				
*EXAI INIT			DOCUMENT NUMBER	DATE	NA	ME	CL.	ASS	SUB	CLASS	FILING I		
Ad	J	AA	5,142,353	8-25-92	Kageyar	na et al.	1		5	-			
		АВ	5,197,061	3-23-93	Halbert-Las	ssalle et al.							
		AC	5,291,289	3-1-94	Hulyalk	ar et al.							
200		AD	5,166,924	11-24-92	24-92 Moose								
		ΑE											
		AF											
		AG											
		АН											
	AI												
FOREIGN PATENT DOCUMENTS													
			DOCUMENT NUMBER	DATE	coul	NTRY	CL	ASS	SUB	CLASS	TRANSI YES	LATION NO	
Z Z	シ・	AJ	0448492A1	9-25-91	Eur	ope	-	-					
		AK	0485108A2	5-13-92	Eur	ope							
		AL	0525641A2	2-3-93	Eur	оре							
	/	АМ	0540231A2	5-5-93	Eur	ope							
R	\$\	AN	0531046A2	3-10-93	Eur	ope	1		_				
			отн	ER DOCUMENT(S) (Including Autho	r, Title, Date, Pert	tinent Pag	ges, Etc.)					
J. J. J.		AO	AO K. M. Uz et al., Multiresolution Source and Channel Coding for Digital Broadcast of HDTV, 1992, Pages 61-69.										
		АР	Nambi Seshadri et al., Multi-Level Block Coded Modulations with Unequal Error Protection for the Rayleigh Fading Channel, Vol. 4, No. 3, May-June 1993, Pages 325-334.										
Į. K	Ĺ	AQ	William F. Schreiber, Spread-Spectrum Television Broadcasting, SMPTE Journal, August 1992, Pages 538-549.										
EXAMINE	R	Amandade DATE CONSIDERED 5.13.02											

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

							A -						
Sheet 5 of 6					· · · · · · · · · · · · · · · · · · ·								
FORM PTO 1449 (n	nodified)			ATTY DOCKET 2000_1388	NO.		SERIAL NEW	NO.					
PATEN	NT AND	MENT OF COMMER TRADEMARK OFFI ES CITED BY APPLICA	CE	APPLICANT Mitsuaki OSI	HIMA et al.			· · · · · · · · · · · · · · · · · · ·					
		sheets if necessary)		FILING DATE				GROUP					
Date Sub	mitted t	o PTO: October 5,	2000	October 5, 2	000								
				U.S. PATENT D	OCUMENTS				<u> </u>				
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NA	ME	CLA	ss	SUBCLASS	FILING I APPRO				
	АА												
	АВ	!						_					
	AC												
	AD	-							,				
	AE						•						
	AF												
	AG												
	АН												
	Al												
	FOREIGN PATENT DOCUMENTS												
		DOCUMENT NUMBER	DATE	cou	NTRY	CLA	ss	SUBCLASS	TRANSI				
S	AJ	85/04541	10-10-85	w	' O								
	AK												
	AL								: :				
	АМ												
	AN	_											
		отн	ER DOCUMENT(S) (Including Autho	r, Title, Date, Per	tinent Pag	es, Etc.)						
20.	AO	Martin Vetterli Systems and Si						sion: A Reviev	v, M ultidim	ensional			
	АР	Ezio Biglieri et a	ıl., Introductio	n to Trellis-Coo	led Modulation	n with A	pplicati	ons, April 6, 19	992, Pages	173-207.			
,XX	DA	English Languag	ge Abstract of	European Pate	ent No. 93 30	7575							
EXAMINER	-	Am	andadi		DATE CONSIDE	RED	05	5.13.02		-			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

								A =					
Sheet	6 of 6				,		· · · · · · · · · · · · · · · · · · ·						
FORM	PTO 1449 (n			_	ATTY DOCKET 2000_1388	NO.		SERIAL NEW	NO.				
	PATEN	IT AND	MENT OF COMMER TRADEMARK OFFI ES CITED BY APPLICA	CE	APPLICANT Mitsuaki OSI	HIMA et al.	1				-		
			sheets if necessary)	(141(3)	FILING DATE				GROU	P			
	Date Sub	mitted t	to PTO: October 5,	2000	October 5, 2	000			L				
	· · · · · · · · · · · · · · · · · · ·				U.S. PATENT DO	DCUMENTS			1		T		
	AMINER IITIAL		DOCUMENT NUMBER	DATE	NA	ME	CLA	·ss	SUBC	CLASS		FILING DATE IF APPROPRIATE	
<u>M</u>	لم	AA	4,636,876	1-13-87	Schv	vartz		-	_	_			
		AB	4,855,692	8-8-89	Kennar	d et al.							
		AC	4,873,701	10-10-89	Tre	tter							
		AD	4,958,360	9-18-90	Sa	ıri							
\		AE	5,115,453	5-19-92	Calderba	nk et al.							
87	S	AF	5,168,509	12-1-92	Nakamu	ra et al.	1						
-		AG			,								
		АН											
		AI .											
	FOREIGN PATENT DOCUMENTS												
			DOCUMENT NUMBER	DATE	COUN	ITRY	CLA	ss	SUBC	CLASS	TRANSI YES		
Z	2	AJ	0122805	10-24-84	E	P		-		-	x		
X	S.	AK	63-180280	7-25-88	J	P				-	abstract		
		AL											
		АМ											
		AN											
			отн	ER DOCUMENT(S) (Including Autho	r, Title, Date, Perti	inent Page	es, Etc.)					
A	9	AO		CTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) Kazuhiko Nitadori, Synthesis of Multichannel Orthogonal VSB Signals by Quadrature Method, 1976 International Conference on Communications, June 14-16, 1976, Volume 1, Pages 3-25 - 3-29.									
		AP	Thomas M. Cover, Broadcast Channels, IEEE Transactions on Information Theory, January 1972, Pages 2-14										
	žΣ	AQ	"Optimum Weighted PCM for Speech Signals", Sundberg, IEEE Transactions on Communications, Volume COM-26, No. 6, June 1978, Pages 872-881.										
EXAMI	NER		Amandale Date considered 5. 13.02										

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Character 1		•					-		
Sheet 1 of 1 FORM PTO 1449 (n	nodified)			ATTY DOCKET NO. 2000_1388		SERIAL 09/67			
PATE	IT AND	MENT OF COMMER TRADEMARK OFFI	CE .	APPLICANT			,,,,,,	·	
LIST OF RI (<i>Us</i>	EFERENCI e several	ES CITED BY APPLICA sheets if necessary)	ANT(S)	Mitsuaki OSHIMA e	t al.				<u></u>
Date Subm	itted to	PTO: September 24	1, 2001	FILING DATE October 5, 2000			GROUP 2634		
				U.S. PATENT DOCUMEN	TS				
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLA	ASS	SUBCLASS	FILING D	
	AA	OIPE JO	ర్మ					Δ	
	АВ	SEP 2 " 200	OFFICE					PECE OF COME TO	4
	AC	SATENTO TRADE	HOT				Technol	(p25)	(5)
	AD							Center	01
	AE							150	20
	AF								
	AG					·····			
	АН					· ·			
	AI						<u> </u>		
				FOREIGN PATENT DOCUM	ENTS				
		DOCUMENT NUMBER	DATE	COUNTRY	CLA	ASS	SUBCLASS	TRANSI YES	
SK	AJ	04-196822	7-16-92	Japan				abstract	
SD	AK	0 506 400	9-30-92	Europe				×	
	AL								
	АМ								
	AN								
		отн	ER DOCUMENT(S	(Including Author, Title, L	Date, Pertinent Pag	es, Etc.)			
	AO								
	AP				14 AVAX (II 114)				
	ΔQ		** ••		<u>.</u>				•••
EXAMINER ,	Ar	nandade	7	DATE	CONSIDERED	<i>5.</i> 13.	02/		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1	ۍ. د.		<u> </u>	',' '' '' '' '' '' '				•			
FORM PTO 1449 (/	modified)	MENT OF COMMER	CE	ATTY DOCKET 2000_1388			SERIAL 09/67		RECF	EIVED	
PATEI	DNA TV	TRADEMARK OFFI	CE	APPLICANT Mitsuaki OS	HIMA et al.					9 2001	
(Us	se several	sheets if necessary) o PTO: January 5,		FILING DATE October 5, 2	.000		· · · · · ·	$\overline{}$		Center 260	0
			· 	U.S. PATENT D							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	I	ME	CLA	ss	SUE	CLASS	FILING I	DATE IF PRIATE
AR.	АА	5,243,629	9-7-93	W	ei	. water to a second	a.u.				
	АВ			(8)	OC OF THE		· =				
	AC			LAM	0 5 2001 8						
	AD			<u>Pa</u>	EMT & TRADE						
	AE										
	AF										
	AG										
	АН							ļ			
	Al						/				
	1			FOREIGN PATENT	DOCUMENTS			,		r	
		DOCUMENT NUMBER	DATE	cou	NTRY	CLA	ss	SUE	CLASS	TRANS YES	
SK	AJ	64-74836	3-20-89	Ja	oan	$\overline{1}$				abstract	
	AK	53-108215	9-20-78	Jaj	oan					abstract	
	AL	63-28145	2-5-88	Jaj	oan					abstract	
	AM	64-68144	3-14-89	Jaj	oan		1_			abstract	
SD	AN	5-218978	8-27-93	Jap	oan		<u>-</u>	_			х
	 	нто	ER DOCUMENT(S) (Including Autho	r, Title, Date, Perti	inent Page	es, Etc.)	•			
	AO										
	АР									-	
	AQ										-, -
EXAMINER		Aman	lase		DATE CONSIDER	RED	05	5.13.	02		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.